

Spring Plungers

With Hex Socket Hole / Hex Nose

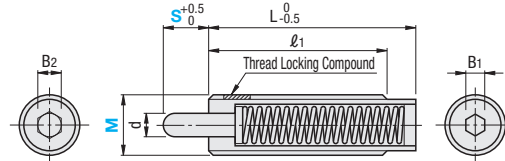
■ **Features:** As it can be fixed with a hex wrench from the top, no dedicated wrench is required.

■ **Body with Hexagon Socket Hole**



RoHS 10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
PJLH (Light Load)	S45C	29~35HRC	Black Oxide	S45C	57~63HRC (Carburized)	Trivalent Chromate	SWP-B	-30~80°C

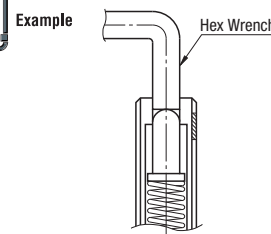


- ① Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ② The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.
- ③ Do not use the rear hex socket at the time of mounting or removal.

Part Number Type	M	S	d	l1	L	B1	B2	For Light Load N (kgf)		Unit Price
								min.	max.	
PJLH	8	3	3	25	25	2.5	3	5.8 {0.6}	9.8 {1.0}	
		5	4	30	34	3	4	5.8 {0.6}	14.7 {1.5}	
	10	5	4	30	38	3	4	2.6 {0.3}	14.7 {1.5}	
		10	5	35	40	4	5	5.6 {0.6}	14.7 {1.5}	
12	5	5	35	40	4	5	3.0 {0.3}	19.7 {2.0}		
	10	5	35	40	4	5	3.0 {0.3}	19.7 {2.0}		

kgf=Nx0.101972

Ordering Example Part Number - S
PJLH 8 - 3



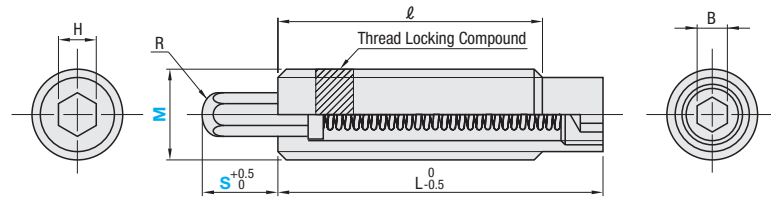
■ **Features:** The hex shape of pin allow this spring plunger to be installed with socket wrenches or spanners, without any dedicated wrenches.

■ **With Hex Nose**



RoHS 10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
Light Load PJLR	S45C	29~35HRC	Black Oxide	S45C	57~63HRC (Carburized)	Trivalent Chromate	SWP-B	-30~80°C
Heavy Load PJHR						Black Oxide		

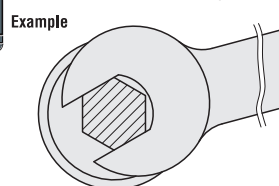


- ① Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ② Do not use the rear hex socket at the time of mounting or removal.
- ③ The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.

Part Number Type	M	S	M x Pitch (Coarse)	H	R	l	L	B	Light Load				Heavy Load				Unit Price				
									Load N (kgf)		Load N (kgf)		Load N (kgf)		Load N (kgf)						
									min.	max.	min.	max.	min.	max.	min.	max.					
PJLR PJHR	10	5	10x1.5	4	2.2	30	30	3	5.9 {0.6}	14.7 {1.5}	8.8 {0.9}	49.0 {5.0}									
									2.9 {0.3}	14.7 {1.5}	7.8 {0.8}	49.0 {5.0}									
		12					10	12x1.75	5	2.9	35	43	4	5.9 {0.6}	14.7 {1.5}	18.6 {1.9}	49.0 {5.0}				
														2.9 {0.3}	19.6 {2.0}	7.8 {0.8}	49.0 {5.0}				
		16					15	16x2.0	7	4.1	35	51	5	2.9 {0.3}	19.6 {2.0}	4.9 {0.5}	49.0 {5.0}				
														5.9 {0.6}	39.2 {4.0}	12.7 {1.3}	78.5 {8.0}				
	20		15	60	5	3.9 {0.4}	39.2 {4.0}					12.7 {1.3}	78.5 {8.0}								
						4.9 {0.5}	39.2 {4.0}					9.8 {1.0}	78.5 {8.0}								

kgf=Nx0.101972

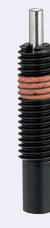
Ordering Example Part Number - S
PJHR 10 - 10



Spring Plungers

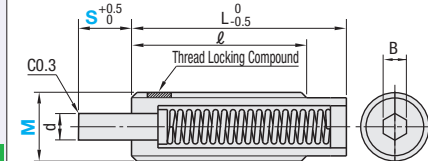
Flat Tip, For Inclined Surface, Flanged

■ **Flat Tip**

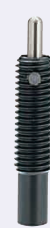


RoHS 10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
PJLF (Light Load)	S45C	29~35HRC	Black Oxide	S45C	57~63HRC (Carburized)	Trivalent Chromate	SWP-B	-30~80°C
						Electroless Nickel Plating		

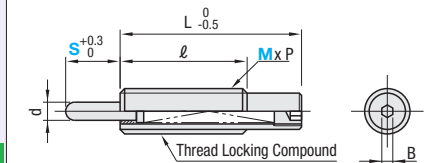


■ **For Inclined Surface**



RoHS 10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
PJHZ	S45C	29~35HRC	Black Oxide	S45C	50HRC~ (Carburized)	Electroless Nickel Plating	SWP-B	-30~80°C



■ **Features of PJHZ**

- ① Special structure with high abrasion resistance and seizing resistance enables the use on inclines. (For conventional spring plungers, use 0°, under oil free condition; 5° or less with oil lubrication.)
- ② Oil free use is possible.
- ③ Angle : 0~30°

Part Number Type	M (Coarse)	S	d	l	L	B	Load N		Unit Price
							min.	max.	
PJLF	5	3	2.0	20	20	1.5	2.0	9.8	
			2.0	27	27	1.5	2.0	9.8	
	6	3	2.5	25	25	2	5.9	9.8	
			2.5	30	30	2	2.0	9.8	
	8	3	3.1	25	25	2.5	5.9	9.8	
			3.1	27	27	2.5	2.9	9.8	
	10	5	3.8	30	30	3	5.9	14.7	
			3.8	30	43	3	2.9	14.7	
	12	10	5.5	35	43	4	2.9	19.6	
			5.5	35	43	4	2.9	19.6	

kgf=Nx0.101972

- ① Thread Locking Treatment is where anaerobic thread locking compound in micro capsules is used to retain the threads. Once parts have been loosened, adhesion is lost. Use an anaerobic thread locking compound when reassembling.
- ② The thread locking is most effective by leaving the parts for 72 hours or more in 25°C. It should be noted if the parts are left for short period of time and in low temperature, the thread locking compound will be less-effective.
- ③ Do not use the rear hex socket at the time of mounting or removal.

Part Number Type	M (Coarse)	S	d	S	l	L	B	Load N		Unit Price	
								min.	max.		
PJHZ	10	10	4	10	30	43	3	7.8	49.0		
								35	43	7.8	49.0
	12	15	5	15	35	51	4	4.9	49.0		
								10	35	60	12.7
	16	15	8	15	35	60	5	12.7	78.5		
								20	35	85	9.8
		30	15	8	20	35	125	5	6.9	78.5	
									30	35	125

kgf=Nx0.101972

Test Conditions

- Press Machine : 20 TON Crank Press
- Cyclic Speed : 130SPM
- Inclination Angle : 30°
- Lubrication : Oil-Free

Type	Operating Life	
	A	B
PJHZ16-30	Over 300 thousand times or more	Over 300 thousand times or more
PJH16-30	Gauging at 17,000 cycles	Gauging at 50,000 cycles

(Note) This test result was obtained in conditions specified above. The service life changes according to the usage condition.

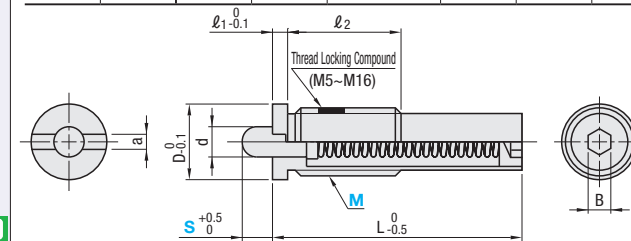
- ③ Do not use the rear hex socket at the time of mounting or removal.

■ **Flanged**



RoHS 10

Type	Body			Pin			Spring	Operating Temperature
	Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment		
Light Load FPJL	S45C	29~35HRC	Black Oxide	S45C	57~63HRC (Carburized)	Trivalent Chromate	SWP-B	-30~80°C
Heavy Load FPJH						Black Oxide		



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Part Number Type	M (Coarse)	S	d	L	B	D	l1	l2	a	FPJL Load N (kgf)			FPJH Load N (kgf)			Applicable Wrench	Unit Price
										min.	max.	min.	max.	min.	max.		
										min.	max.	min.	max.	min.	max.		
FPJL FPJH	3	1.5	1.1	10	0.9	5	1.5	5	0.5	0.5	1	0.8	2.9				
										0.3	1	0.8	2.9				
	4	2	1.6	15	1.3	6	1.8	6	0.7	1	2	2.9	8.8				
											0.6	2	2	8.8			
	5	3	2	20	1.5	7	2	8	1.2	2	9.8	4.9	19.6				
											2	9.8	2.9	19.6			
	6	3	2.5	25	2	8	2	9	1.5	2	5.9	9.8	7.8	29.4			
											2	9.8	4.9	29.4			
	8	3	3.1	27	2.5	10	2.5	12	1.5	2	5.9	9.8	7.8	29.4			
											2.9	14.7	8.8	49			
	10	5	3.8	30	3	12		15			2.9	14.7	7.8	49			
											5.9	14.7	18.6	49			
12	10	5.5	43	4	14		20			2.9	19.6	7.8	49				
										2.9	19.6	4.9	49				
	15	51								5.9	39.2	12.7	78.5				
										3.9	39.2	12.7	78.5				
16	20	8	85	5	18		25			4.9	39.2	9.8	78.5				
										2.9	39.2	6.9	78.5				
40	125									4.9	39.2	6.9	78.5				
										4.9	39.2	6.9	78.5				

kgf=Nx0.101972

- ③ M3 and M4 can be fixed with a flathead screwdriver.
- ③ Do not use the rear hex socket at the time of mounting or removal.

■ **Features:** The flange makes easier height adjustment.

